# PULSAR 10

## 10BaseT & 10Base2
## Network type II Pc-card

# User manual

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# User Manual
# Pulsar 10 network type II Pc-card

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# 1. INTRODUCTION

## 1.1. ABOUT THIS MANUAL

This manual will explain how to install and use your Pulsar 10 Ethernet card.

## 1.2. ABOUT THIS PRODUCT

The PULSAR 10 Ethernet card is a credit-card-size Type II PCMCIA Ethernet adapter that complies with the PCMCIA 2.1 and IEEE 802.3 standards and works with computers that incorporate a compatible interface. The drivers associated with this card allow you to easily use the most popular Network Operating System (NOS) in the PC environment.

## 1.3. SYSTEM REQUIREMENTS

- An IBM compatible PC with 386SX or faster processor
- At least one type II PCMCIA socket
- Drivers and utilities provided with this product
- PCMCIA release 2.1 compliant Card Services and Socket Services
- 10BaseT or 10Base2 Ethernet connectivity to your LAN

## 1.4. OPERATING ENVIRONMENTS

- Novell Netware 3.x, 4.x
- Microsoft LAN Manager
- Packet Driver Applications
- Microsoft Windows for Workgroups 3.11
- Microsoft Windows 3.1
- Microsoft Windows NT 3.51, NT 4.0
- Windows 95, Windows 98
- Lantastic 6.0
- IBM OS/2 Warp Version 3
- Windows 2000

## 1.5. CONTENTS INCLUDED IN THE PACKAGE

- PULSAR 10 Ethernet Card
- 10BaseT or 10Base2 media coupler

- A 3 ½" driver disk
- User Manual on disk
- Quick installation guide
- A plastic case for the PULSAR 10 card

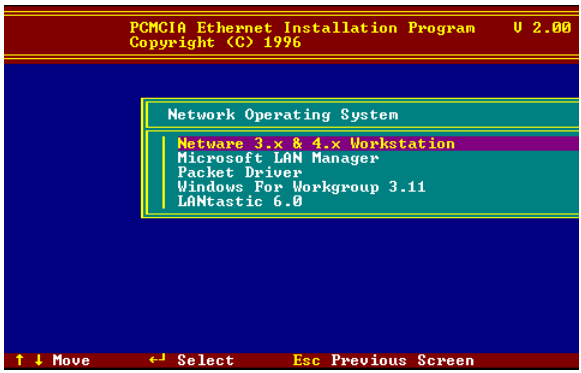
# 2. INSTALLATION

## 2.1. INSTALLING THE PULSAR 10 CARD

1. Insert the PULSAR 10 Ethernet card into the PCMCIA slot with the 68 pin connector facing the PCMCIA slot and the label facing up.
2. Plug the media coupler into the Pulsar 10's 15 pin connector. The hardware installation is now completed. The PULSAR 10 Card will be powered directly from the PC.
3. Connect the media coupler to the network using the RJ-45/UTP or T-connector/Coaxial cable.

## 2.2. INSTALLING THE SOFTWARE

Insert the driver diskette in the floppy drive and specify the current drive as the floppy drive. Then run INSTALL to install the real mode drivers such as ODI, NDIS 2.x or Packet Drivers.




### 2.2.1. Novell Netware

There are two methods to install the Netware client ODI driver: the menu installation and the Netware 3.12 or 4.x Client installation.

Menu Installation

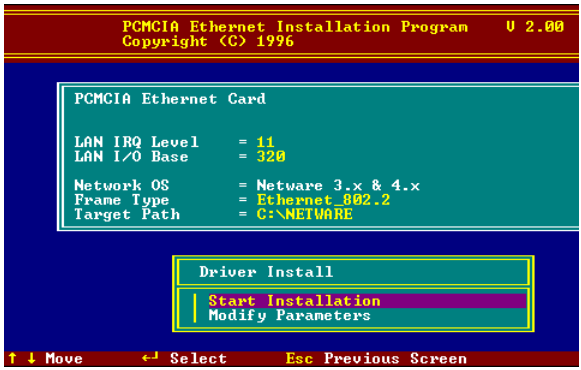
1. Run **INSTALL.EXE** from the root directory of the driver diskette.
2. Select the *"***Netware 3.x and 4.x Workstation***"* item from the menu.

3.If the current settings are acceptable, select **Start Installation** and go to step 5. Otherwise, select **Modify Parameters** to change the settings.

4.Move the cursor to the setting you want to change and press <Enter> to select a fit value. When the configuration is finished, press <Enter> on the **OK** field to exit the screen and go back to step 3.

*5.*The installation program starts copying related files from the diskette to the destination directory and modifies the AUTOEXEC.BAT and NET.CFG.

*6.*Now, the installation is completed. Reboot the computer to make your Netware connection.




Follow the instructions listed below to manually install the ODI driver.

1.Copy the files LE10ODI.COM and NET.CFG from the path \NETWARE and the file LANEN.EXE from the path \ENABLER from the driver diskette to the Netware client directory containing Novell's LSL.COM, IPXODI.COM and NETx.COM files.

2.Use a text editor to edit the NET.CFG in order to set the frame type. The frame type for Netware server is set to 802.3 for NW3.11 and 802.2 for NW3.12 and NW4.x . The frame type must be set to the same type of the server or the client can not login to the server.

3.Follow the Novell instructions on using ODI programs. You can substitute the LE10ODI.COM whenever a reference is made to the **Hardware Specific Module**.

4.A typical ODI workstation startup batch file includes:

```
>LANEN  /IRQ=dd /IOP=xxx  Card Enabler
>LSL          ;Link Support Layer Module provided by Novell
>LE10ODI      ;Hardware Specific Module
>IPXODI       ;IPX Protocol Stack Module provided by Novell
>NETx         ;Shell Support Module provided by Novell
>LOGIN
```

## Novell Client Installation

1. Run the NetWare Client Install V1.21
   -Get the 4 Client disks from the network administrator, or
   -Run the \NWCLIENT\INSTALL.EXE from a previous Installation
2. A message appears on the screen asking you whether or not you want the program to perform modifications on your AUTOEXEC.BAT and CONFIG.SYS files.
3. Answer "Yes". The program then modifies your AUTOEXEC.BAT and CONFIG.SYS files and creates backup copies.

4. The following message appears:
   -Install support for MS Windows? (Y/N):
5. Answer accordingly and provide a path if necessary.
6. The program displays the following:
   -Configure your workstation for backup by a NetWare server running software such as BACKUP? (Y/N):
7. Answer accordingly and provide a path if necessary.
8. Select a driver for your network board.
9. Select **Other Drivers** in the driver list.
10. Go to the Insert the Driver Disk dialog box and specify the path where the ODI driver and INS files reside. For example: C:\ODI.DOS.
11. Press **Enter** and select the target ODI driver.
12. Specify the driver's optional settings.
13. Press F10 to save the new configuration.
14. Highlight "Install press here" and press <Enter> to install.

The program copies the necessary files for NetWare Client. Continue the installation procedure to completion. Upon completion, a new NET.CFG file will be created in your DOS directory. Typically, this file contains the following lines:

```
Link Driver  LE10ODI
#FRAME Ethernet_802.3
FRAME Ethernet_802.2
```

15. Copy the file LANEN.EXE from the \ENABLER directory on the driver diskette to the Netware Client directory.

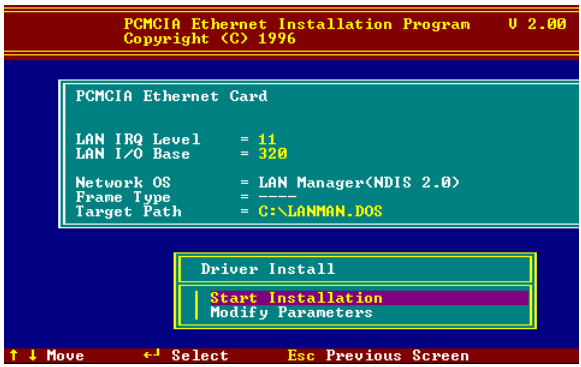
16. Edit the STARTNET.BAT with a text editor. Add and run the LANEN command at the beginning of the file. The STARTNET.BAT for the ODI workstation looks like this:

```
LANEN /IOP=nnn /IRQ=n
                --Card Enabler
SET NWLANGUAGE=ENGLISH
                --Set NetWare 4.X to English
LSL             --Link Support Layer Module
                  provided by Novell
LE10ODI         --Hardware Specific Module
IPXODI          --IPX Protocol Stack Module provided by Novell
VLM             --DOS Support Module provided by Novell
F:              --Change to connected device
LOGIN xxx       --Login to file server as user xxx
```

17. Run STARTNET to access the Novell network.

## 2.2.2. MS LAN Manager

1.View the **README.TXT** on the installation diskette in the \NDIS2 directory. Before installing the drivers, please ensure the **Microsoft LAN Manager** has been installed in the target path. The installation program will check and modify the **PROTOCOL.INI** file for LAN Manager.
2.Run **INSTALL.EXE** from the root directory of the driver diskette.
3.Select the **Microsoft LAN Manager** item on the menu screen.
4.If the current settings are acceptable, select **Start Installation** and go to step 6. Otherwise, select **Modify Parameters** to change the settings.
5.Move the cursor to each field you want to change and press <Enter> to select a fit value. When the configuration is finished, press <Enter> on the **OK** field to exit the screen and go back to step 4.
6.The installation program starts copying related files from the driver diskette to the destination directory and modifies the CONFIG.SYS and PROTOCOL.INI.
7.Reboot the computer to load the driver and start LAN Manager in batch.




Example of PROTOCOL.INI: used by **LAN Manager**

```
[PROTMAN]
    DRIVERNAME = PROTMAN$
    DYNAMIC = YES
    PRIORITY = NETBEUI

[NETBEUI_XIF]
    Drivername = netbeui$
    SESSIONS = 6
    NCBS = 12
    BINDINGS = "LE10NDS_NIF"
    LANABASE = 0

[LE10NDS_NIF]
    ; protocol.ini session for LAN driver
    IOADDRESS = 0x320
    INTERRUPT = 11
```

DRIVERNAME = LE10NDS$

## 2.2.3. Packet Driver

1.Run **INSTALL.EXE** from the root directory of the driver diskette.
2.Select the **Packet Driver** item on the menu screen.
3.If the current settings are acceptable, select **Start Installation** and go to step 5. Otherwise, select **Modify Parameters** to change the settings.
4.Move the cursor to focus on the field you want to change and press <Enter> to select a fit value. When the configuration is finished, press <Enter> on the **OK** field to exit the screen and go back to step 3.
5.The installation program starts copying related files from the diskette to the destination directory and modifies the AUTOEXEC.BAT.
6.Reboot the computer to load the driver.

## 2.2.4. Windows for Workgroups 3.11

### NDIS3 Driver for Workgroups

1.Run **Windows for Workgroups** and click the **Network Setup** icon in Network group.
2.In the Network Settings dialog box, click the Networks... to select the network operating system.
3.In the **Networks** dialog box, check the radio button before you can go to Install Microsoft Windows Network and **No Additional Network**. Press **OK** to go back to the Network Settings screen.
4.Click Drivers... to select the network driver.
5.In the Network Drivers dialog box, press Add Adapter... to enter the **Add Network Adapter** dialog box. Select Unlisted or Updated Network Adapter and press **OK**.
6.Windows will prompt an Install Driver dialog box. Put the driver diskette into the floppy drive and press **OK**.
7.Select the Enhanced mode NDIS3 for.... string and press **OK**.
8.Follow the Windows instructions to complete the installation and exit Windows
9.Run **INSTALL.EXE** from the root directory of the driver diskette.
10.Select **Windows for Workgroup** in the Network Operating System screen.
11.If the current settings are acceptable, select **Start Installation** and go to step 13. Otherwise, select **Modify Parameters** to change the settings.
12.Move the cursor to the setting you want to change and press <Enter> to select a fit value. When the configuration is accepted, press <Enter> on the **OK** field to exit the screen and go back to step 11.
13.Select **NDIS Server(LAN Manager,...)** as the network server you will attach to and press <Enter> key.
14.The installation program starts copying related files to the destination directory and modifies the AUTOEXEC.BAT.
15.Reboot the computer to load the driver.

### NDIS2 Driver for Workgroups

1. Run **Windows for Workgroups** and click the **Network Setup** icon in Network group.
2. In the Network Settings dialog box, click Networks... to select the network operating system.
3. In the Networks dialog box, check the radio button before you can go to Install **Microsoft Windows Network** and **No Additional Network**. Press **OK** to go back to the Network Settings screen.
4. Click **Drivers...** to select the network driver.
5. In the Network Drivers dialog box, press **Add Adapter...** to enter the **Add Network Adapter** dialog box. Select **Unlisted** or **Updated Network Adapter** and press **OK**.
6. Windows will prompt an Install Driver dialog box. Put the driver diskette into the floppy drive and press **OK**.
7. Select the **Real mode NDIS2 for....** string and press **OK**.
8. Follow the Windows instructions to complete the installation and exit Windows.
9. Run **INSTALL.EXE** from the root directory of the driver diskette.
10. Select **Windows for Workgroups** in the Network Operating System screen.
11. If the current settings are acceptable, select **Start Installation** and go to step 13. Otherwise, select **Modify Parameters** to change the settings.
12. Move the cursor to the setting you want to change and press <Enter> to select a fit value. When the configuration is finished, press <Enter> on the **OK** field to exit the screen and go back to step 11.
13. Select **NDIS Server(LAN Manager,...)** as the network server you will attach to and press <Enter>.
14. The installation program starts copying related files to the destination directory and modifies the AUTOEXEC.BAT.
15. Reboot the computer to load the driver.

### ODI Driver for Workgroups

1. Run **Windows for Workgroups** and click the **Network Setup** icon in Network group.
2. In the **Network Setup** dialog box, click **Networks...** to select the network operating system.
3. In the **Networks** dialog box, check **Install Microsoft Windows Network** and **Others**, then select **Novell NetWare (Workstation Shell, 3.X)** or **Novell NetWare (Workstation 4.0 and above)** and press **OK** to enter the screen of IPXODI.COM and LSL.COM
4. Press **OK** to go back to the Network Setup screen.
5. Click on **Drivers...** to select the network driver.
6. In the **Network Drivers** dialog box, press **Add Adapter...** to enter the **Add Network Adapter** dialog box. Select **Unlisted** or **Updated Network Adapter** and press **OK**.

7. Windows will prompt an **Install Driver** dialog box. Put the driver diskette in the floppy drive and press OK.
8. Select the Netware ODI Driver.... string and press OK.
9. Follow the Windows instructions to complete the installation and exit Windows.
10. Run INSTALL.EXE from the root directory of the driver diskette.
11. Select Windows for Workgroups in the Network Operating System screen.
12. If the current settings are acceptable, select Start Installation and go to step 13. Otherwise, select Modify Parameters to change the settings.
13. Move the cursor to the setting you want to change and press <Enter> to select a fit value. When the configuration is finished, press <Enter> on the OK field to exit the screen and go back to step 11.
14. Select Novell Netware Server as the network server you will attach to and press <Enter> .
15. The installation program starts copying the related files to the destination directory and modifies the AUTOEXEC.BAT and NET.CFG.
16. Reboot the computer to load the driver.

### 2.2.5. Windows NT 3.51

1. In Main Group of NT 3.51, open Control Panel and click on the Network icon.
2. In the Network Settings dialog box, click Add Adapter... The Add Network Adapter dialog box will appear.
3. Choose <Other>. Choos Requires Disk From Manufacturer from the network adapter card list and press Continue.
4. When Windows NT prompts for the manufacturer disk, insert the driver diskette and press OK until the Network Setting Change dialog box appears.
5. Reboot.

### 2.2.6. Windows NT 4.0

In order to proceed with the following steps, the Network Services must already be installed in the NT 4.0 system.

1. Insert the Ethernet Adapter into one of the system's PCMCIA Slots
2. Start Windows NT 4.0
3. Click My Computer
4. Click Control Panel
5. Run Network
6. Select Adapters page
7. Click Add to add a network adapter
8. Click Have Disk
9. Insert the driver disk into drive A:

10.Specify the path A:\ and press OK

11.A dialog box will appear in which you can adjust the driver's settings. The resources assignment of the adapter must be unique in the system

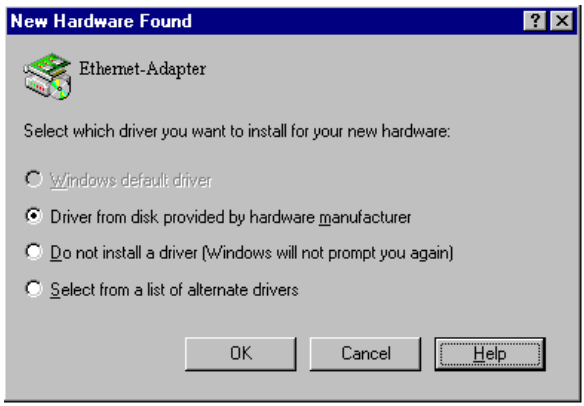
12.Click OK when all settings are completed

13.Click Close to complete the network settings

### 2.2.7. Windows 95 Installation

1.The drivers of the PCMCIA slot must be installed properly. The System Icon in the Control Panel can report on its functionality. Any questions regarding problems with the PCMCIA slot need to be taken up with the computer's manufacturer.

2.Insert the PULSAR 10 Ethernet Card into the PCMCIA slot. Select Driver from disk provided by hardware manufacturer in the New Hardware Found dialog box.


New Hardware Found
Ethernet-Adapter
Select which driver you want to install for your new hardware:
Windows default driver
Driver from disk provided by hardware manufacturer
Do not install a driver (Windows will not prompt you again)
Select from a list of alternate drivers
OK
Cancel
Help

3.Specify the path A:\ and insert the driver diskette. The driver will be installed and you may be asked for the original Windows 95 CD/disks.

4.For the first time installation, please click Network in Control Panel to add the Protocols, Client and Services needed

5.Reboot the machine and the Pulsar 10 will be fully functional.

### 2.2.8. Windows 98 installation

### 2.2.9. Windows 2000 installation

## 2.2.10. Artisoft Lantastic 6.0 Installation

1.First install LANTASTIC 6.0.
2.Run INSTALL.EXE from the root directory of the driver diskette.
3.Select LANTASTIC 6.0 in the Network Operating System screen.
4.If the current settings are acceptable, select Start Installation and go to step 6. Otherwise, select Modify Parameters to change the settings.
5.Move the cursor to the field you want to change and press <Enter> to select a fit value. When the configuration is finished, press <Enter> on the OK field to exit the screen and go back to step 4.
6.The installation program starts copying the related files from the diskette to the destination directory and modifies the CONFIG.SYS, PROTOCOL.INI, and STARTNET.BAT.
7.Please reboot the computer to load the driver.

## 2.2.11. IBM OS/2 Warp

NDIS2 Driver for OS2 Warp

Before installing the driver, please ensure the PCMCIA Service was properly installed and works correctly. If the PCMCIA Service of OS/2 Warp has already been enabled, please move on to portion B for the driver installation. Otherwise, follow the instructions below to install the PCMCIA Service.

A. Enable PCMCIA Service of OS/2 Warp
1.In the OS/2 Desktop group, double-click on the OS/2 System icon.
2.Double-click on the System Setup icon.
3.Double-click on the Selective Install icon.
4.Select the PCMCIA Support button.
5.Select PCMCIA system.
For example: select IBM ThinkPad 750
6.Click OK.
7.Click Install
8.Select the source drive and directory
For Example D:\OS2IMAGE
9.Click Install
10.Click OK

B. Install the NDIS2 driver for IBM LAN Server 4.0
1.In the OS/2 Desktop group, double-click on the MPTS icon.
2.Click Configure.
3.Select the LAN adapters and protocols option.
4.Click Configure.

5.Select the Other adapters ... option.
6.Insert the driver diskette and type the driver path:
A:\OS2\NDIS2
Click OK.
7.Select PULSAR 10 Ethernet Adapter, then click Add.
8.Select IBM OS/2 NETBIOS, then click Add.
9.Click OK.
10.Click Close.
11.Click Exit.
12.Shutdown and restart your system.

ODI Driver for IBM OS/2 Warp

Before installing the driver, please ensure the PCMCIA Service is installed and works properly. If the PCMCIA Service of OS/2 Warp has already been enabled, jump to portion B for the driver installation. Otherwise follow the instructions below to install the PCMCIA Service.

A. Enable PCMCIA Service of OS/2 Warp

1.In the OS/2 Desktop group, double-click on the OS/2 System icon.
2.Double-click on the System Setup icon.
3.Double-click on the Selective Install icon.
4.Select the PCMCIA Support button.
5.Select PCMCIA system.
For example : select IBM ThinkPad 750
6.Click OK
7.Click Install
8.Select the source drive and directory
For Example D:\OS2IMAGE
9.Click Install
10.Click OK

B. Install Netware Request

1.Insert the diskette labeled WSOS2_1 in the diskette drive A:
2.Change current drive to A:
3.Run INSTALL.EXE
4.Select Installation
5.Select Requester on workstation...
6.Set Target Directory
Assume C:\NETWARE
7.Click OK
8.Select Edit CONFIG.SYS and Copy All Files...
9.Click OK
10.Insert the diskette labeled WSDRV_1 and Click OK
11.Select NE2000.SYS driver

12.Click Continue
13.Insert the diskette labeled WSOS2_1 and Click OK
14.Click Continue
15.Select the SPX Support for OS/2 Sessions
16.Click Save
17.Click OK
18.Click Copy
19.Insert the diskette labeled WSOS2_2 and Click OK
20.Insert the diskette labeled WSOS2_3 and Click OK
21.Insert the diskette labeled OS2UTIL1 and Click OK
22.Insert the diskette labeled WSDRV_1 and Click OK
23.Insert the diskette labeled OS2DOC_1 and Click OK
24.Insert the PULSAR 10 Ethernet Adapter driver diskette
25.Close the Installation window to exit the installation
26.Copy the following driver to the C:\NETWARE directory
COPY A:\OS2\ODI\LE10ODI.SYS
C:\NETWARE
COPY A:\OS2\ODI\LANEN.OS2
C:\NETWARE
27.EDIT C:\CONFIG.SYS
28.Delete DEVICE=C:\NETWARE\NE2000.SYS
For Example
REM -- ODI-Driver Files BEGIN --
REM DEVICE=C:\NETWARE\NE2000.SYS
REM -- ODI-Driver Files END --
29.Add
DEVICE=C:\NETWARE\LANEN.OS2
and DEVICE=C:\NETWARE\LE10ODI.SYS
For Example
REM -- ODI-Driver Files BEGIN --
DEVICE=C:\NETWARE\LANEN.OS2
DEVICE=C:\NETWARE\LE10ODI.SYS
REM -- ODI-Driver Files END --
30.Save C:\CONFIG.SYS
31.Shutdown and restart your system.

# 3. GENERAL INFORMATION

## 3.1. NOTES FOR NDIS DRIVER

The following are examples of a partial CONFIG.SYS and AUTOEXEC.BAT file for loading SystemSoft Card Services and NDIS2 driver:

Examples of a partial CONFIG.SYS file:

```
DEVICE=C:\CARDSOFT\SS365SL.EXE
DEVICE=C:\CARDSOFT\CS.EXE
DEVICE=C:\CARDSOFT\CSALLOC.EXE C:\CARDSOFT\CSALLOC.INI
DEVICE=C:\CARDSOFT\CARDID.EXE
device=c:\lanman.dos\drivers\ethernet\le10\lanen.exe
device=c:\lanman.dos\drivers\protman.dos /I:c:\lanman.dos
device=c:\lanman.dos\drivers\ethernet\le10\le10nds.dos
```

Examples of a partial AUTOEXEC.BAT file:

```
SET PATH=C:\LANMAN.DOS\NETPROG;%PATH%
NET START WORKSTATION
LOAD NETBEUI
```

The Ethernet configuration information for the DOS NDIS driver is contained in the PROTOCOL.INI file. The section of the PROTOCOL.INI file that contains the configuration information for this card must begin with "[LE10NDS2_NIF]". The valid entries in the file are listed below:

[LE10NDS2_NIF]

DRIVERNAME - LE10NDS$

this line must always be present

IOADDRESS - value

where value is one of 32 bytes boundary from 0x200 to 0x3e0.

The leading "0x" for the hex notation is required.

Use a value of 0 to have Card Services select theaddress base from its pool of available addresses.

INTERRUPT - value

where value is one of the following interrupts:

3, 4, 5, 7, 9, 10, 11, 12, 15.

To have Card Services select an available interrupt resource for you, place a value of 0 at this location.

## 3.2. NOTES FOR PACKET DRIVER

The following are examples of a partial CONFIG.SYS file for loading SystemSoft Card Services and the Packet Driver:

Examples of a partial CONFIG.SYS file:

```
DEVICE=C:\CARDSOFT\SS365SL.EXE
DEVICE=C:\CARDSOFT\CS.EXE
DEVICE=C:\CARDSOFT\CSALLOC.EXE C:\CARDSOFT\CSALLOC.INI

DEVICE=C:\CARDSOFT\CARDID.EXE
device=c:\tcpip\lanen.exe
device=c:\tcpip\le10pd.sys
```

## 3.3. NOTES FOR WINDOWS FOR WORKGROUPS DRIVER

The following are examples of a partial CONFIG.SYS and AUTOEXEC.BAT file for loading SystemSoft Card Services and drivers for Windows for Workgroups:

Examples of a partial CONFIG.SYS file:

```
DEVICE=C:\CARDSOFT\SS365SL.EXE
DEVICE=C:\CARDSOFT\CS.EXE
DEVICE=C:\CARDSOFT\CSALLOC.EXE C:\CARDSOFT\CSALLOC.INI
DEVICE=C:\CARDSOFT\CARDID.EXE
device=c:\wfw311\lanen.exe
DEVICE=C:\WFW311\IFSHLP.SYS
```

Examples of a partial AUTOEXEC.BAT file:

```
C:\WFW311\NET START
```

# 4. QUESTIONS AND ANSWERS

This chapter provides a number of examples of Questions (Q:), Causes (C:), and Answers (A:). If your LAN is not functioning properly, look up the problem here, or ask your dealer for technical assistance.

Q:The Card Service cannot enable my card. When I run LANEN the error message shows Fail to enable PC card

C:No memory space to map the attribute memory of the PULSAR 10 card.

A:If memory management software e.g. EMM386 has been installed, you have to reserve an area in the upper memory (C000:0 -- EFFF:F) for the attribute memory of the PULSAR 10 card when enabling the card. Example: Device=C:\DOS\EMM386.EXE RAM X=D000-D3FF. Reserve D000 - D3FF for attribute memory.

Q:How will I know the PULSAR 10 Ethernet card has been enabled or not ?

A:1.If the Card Service is installed, you will hear a beep when you insert the card.

2.Run LANEN /CHK to check if the card has been enabled. The resources allocated for the card are shown below at the last line of the display message.

" IO=xxx IRQ=nn Slot=nn"

Q:How to enable the PULSAR 10 Ethernet card ?

A:1.The PULSAR 10 Ethernet card can be enabled by the Card Service installed on the laptop. The drivers associated with the card on the driver diskette can be used together with Card Service.

2.In case the Card Service cannot enable the PULSAR 10 card, you may run LANEN to enable it. After the LANEN has been run, either the driver on the driver diskette or the standard NE2000 driver can be used as the LAN driver.

Q:How to make the Pulsar 10 work under Systemsoft Card Service ?

A:There are several procedures to enable the card by Cardsoft.

1.Copy the LE10.CLB file.

Copy FROM

A:\PCMCIA\CARDSOFT\LE10.CLB

TO

C:\CARDSOFT\LE10.CLB

(Depends on where the Cardsoft is saved)

2.Edit the CARDID.INI file and add the library LE10.CLB.

Edit C:\CARDSOFT\CARDID.INI

Find the section which starts with "[Libraries]", and add the line

CardLib=le10.clb
before any other "CardLib=" lines.

When the card is inserted you will hear a beep. Use CARDCHEK /V to check if the card has been configured correctly.

3. If the card does not work properly, you should edit the CARDID.INI again to change the resources allocation.

In the [Common] section you may find the following strings:

```
Lan1Port=300
Lan1IRQ=5
Lan1MemoryBase1=D0
Lan1MemoryBase2=D4
Lan2Port=320
Lan2IRQ=11
Lan2MemoryBase1=D8
Lan2MemoryBase2=DC
```

You may change the Lan1Port or Lan1IRQ to another value (e.g. Lan1Port=320, Lan1IRQ=11) to make Cardsoft allocate the resources you want.

4. If the resources cannot be allocated properly, you may run \CARDSOFT\CONFIG or edit \CARDSOFT\CSALLOC.INI directly to make the system resources available for allocation. The file content of CSALLOC.INI is listed below.

```
# The available resources described by the "MEM=", "IO=", and "IRQ=" lines
# It may have been altered by the "xINCLUDE" and/or "xEXCLUDE" lines below!
# The "MEM=", "IO=" and "IRQ=" lines are provided for Read-Only purposes.
#
   MEM=D000-DFFF
   IO=100-3F7
   IRQ=5,7,9-C,E-F
#
# *** Resource modifications should be made below this line. ***
#
RIO=170-177,370-377
MEMEXCLUDE=C000-CFFF,E000-EFFF
IOEXCLUDE=3F8-3FF,2F8-2FF
IRQEXCLUDE=3-4,6,13-14
```

You may edit the file to tell Cardsoft which resources are available in your computer.

Q:How to make the card work under Phoenix Card Service ?

A:You have to add a card to PCM. If the card has been added, you may use PCM to modify the resources requested for the card.

1. Insert the Ethernet card into the PCMCIA slot

2.Execute PCM.EXE supported by Phoenix PCM
3.Select the right socket with the PageUp, PageDown key
4.Choose Configure item using ALT-C.
5.Choose Add Card to List item and Enter for first time or choose Edit Config Parameters for further edition
6.Set the IO range and IRQ for the card
7.Hit Enter, then save the configuration
8.Exit PCM.EXE using Alt-V and select Exit
9.Reboot

Q:How to make the card work under Award Card Service ?
A:You need to run the 'PC Card Control for Windows' program under Windows. If you do not have Windows, edit the CARDWARE.INI file as indicated below. Before running PC Card Control for Windows, make sure the Ethernet Adapter card is inserted into one of your PC's sockets.

1.Run 'PC Card Control' for Windows' from the Cardware sub-directory.
2.Press 'OK' on any card detect errors you may get until you get to the main menu.
3.Select the 'Cards' option and choose 'Edit'.
4.Select right Socket and press Enter
If you already have a device in the Defined box called LE10, go to step (11).
5.Select 'New Device' under the 'Defined' devices box.
6.Edit the new device to be named 'LE10'.
7.Select IO range 1 Base(Hex) = 320, Length = 32 (16 bit).
8.Do not alter MEM range 1 or 2.
9.Select IRQ level 11. Click OK to change.
10.Back on the 'Edit card' screen, highlight the 'LE10' device in the defined devices box.
11.Transfer the LE10 to the 'Associated' box with the 'Include' command.
12.Select OK to complete editing and return to the main screen.
13.If the LE10 card is not graphically depicted, choose 'Card' and 'Reconfigure' the socket which contains the LE10 card.

If you still have problems with the CARDWARE software, try to replace your CARDWARE.INI file with the one supplied on the Ethernet Adapter Drivers Disk.
In DOS mode, you may use the PCCARD /D or DOSCARD /D command to check the resources allocated for the card.

Q:The ODI driver is run successfully but fails to login to the Netware server
C:Frame type is incompatible with server or Interrupt miss match.

A:1. The default frame type for Netware 3.11 and earlier is 802.3 but it is changed to 802.2 in Netware 4.x and 3.12. You may check the content of NET.CFG to see if the frame type is acceptable by the server. If the frame type cannot be accepted by the server, please edit NET.CFG to change the frame type on the client site or add a frame type that can be accepted on the server site.

2. If you use the NE2000 driver, the IRQ specified in NET.CFG must be the same as the physical IRQ assignment by Card Service or LANEN. Otherwise you cannot find any servers. If you use the drivers supported by the Pulsar 10, the IRQ always matches, no matter what IRQ value is set in NET.CFG.

# 5. APPENDIX A: PRODUCT SPECIFICATIONS

IEEE 802.3 10BaseT, 10Base2

10Mbps speed

Internal buffer memory, No system memory used

NE2000 compatible ODI client, Packet driver and NDIS version 2.x, 3.x driver supported

## 5.1. Operating Environment

Novell Netware 3.x, 4.x

Microsoft LAN Manager

Packet Driver Applications

Microsoft Windows for Workgroups 3.11,

Windows 3.1

Microsoft Windows NT 3.51, NT 4.0

Windows 95

Windows 98

Windows 2000

Lantastic 6.0

IBM OS/2 Warp Version 3

## 5.2. Physical

PCMCIA Type II

3.37 in. x 2.128 in. x 0.197 in.

85.6mm x 54mm x 5mm

Weight: 35 g

Power: +5V ±5%, @150mA

PCMCIA Type II

A media coupler with RJ-45 socket for 10BaseT LAN only or a media coupler with both RJ-45 and BNC connector for either 10BaseT or 10Base2 LAN.